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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,336	08/31/2006	David A. Biro	S9025.0345	9426

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EXAMINER	
ROBINSON, CHANCEITY N	
ART UNIT	PAPER NUMBER
1795	
MAIL DATE	DELIVERY MODE
07/13/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/591,336	BIRO ET AL.	
	Examiner	Art Unit	
	CHANCEITY N. ROBINSON	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *19-20* is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Applicant's request for reconsideration filed on May 07, 2010 was received. Claims 11-17 and 19-20 have been amended.

2. The text of those sections of Title 35, U.S.C. code not included in this action can be found in the prior Office Action issued on January 7, 2010.

Claim Rejections - 35 USC § 102/103

3. Claims 11-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fukui (US 2003/0170576 A1).

Regarding claims 11-14, Fukui discloses a printed packaging material [0207, 0258 and 0359], which contains less than 700 ppm (600 ppm or 500 ppm) total of residual solvent or water [0384].

Claim 11 is a product-by-process claim. Applicant is reminded of MPEP 2113: "[E]ven though product-by-process claims are limited by and defined by the process; determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

4. Claims 11 and 15-17 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chatterjee et al. (US 6,803,112 A1).

Regarding claims 11 and 15-17, Chatterjee et al. disclose a printed packaging material (abstract, examples, column 3, lines 1-16 and column 7, lines 64-67) has a degree of cure of at least 5 MEK rubs or 10 MEK rubs or 20 MEK rubs (column 8, lines 1-10).

Claim 11 is a product-by-process claim. Applicant is reminded of MPEP 2113: "[E]ven though product-by-process claims are limited by and defined by the process; determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

5. Claim 11-14 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Mossbrook et al. (US 2005/0019533A1).

Regarding claims 11-14, Mossbrook et al. disclose that the printed film for packaging (abstract, examples and [0001]) contains a thermoplastic material in which a product such as food may be introduced into the package and sealed (paragraph [0104]). The printed package material will contain less than 50 ppb (parts by billion) of migratable solvent, which meets the limitation of containing less than 700 ppm (part per million) or 600 ppm or 500 ppm (paragraphs [0007] and [0008]).

Claim 11 is a product-by-process claim. Applicant is reminded of MPEP 2113: "[E]ven though product-by-process claims are limited by and defined by the process; determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the

same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

6. Claims 1, 4-9, 11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bassemir et al. (US 3,552,986).

Regarding claims 1, 4-9, 11 and 18, Bassemir et al. disclose a method of coating or printing untreated polyolefins (col. 1, lines 20-24). It has been found that coating composition and printing inks that are applied to untreated polyolefins has excellent adhesion properties, water-resistance and rub resistance (col. 1, lines 49-68). The compositions and printing inks are useful on containers for food that must be sterilized (printed packaging material). The method of Bassemir et al. comprises applying an liquid ink (activatable liquid ink) to a packaging material (polyolefin substrate; col. 4, lines 11-15), exposing the ink to first actinic radiation (UV light (lamp); col. 4, lines 16-33), applying an energy-curable coating (clear or colored photopolymerizable composition) over the ink (col. 4, line 66 - col. 4, line 8) and curing the coating with second actinic radiation (example 4 and reference claims 9-15 for the method steps). Bassemir et al. disclose the ink can be applied more than once and it is solvent-based. See col. 4, line 74 – col. 5, line 20 and examples. The printed packaging material can be thermoplastic film, foil laminate paper or paper plastic laminate. See col. 4, lines 53-65.

Bassemir et al. do not explicitly disclose the ink is substantially free of curable functionality. However, examiner notes the term “substantially” is a relative term, which has not been defined. Therefore, the term in the claims is indefinite. It would have been obvious to one

of ordinary skill in the art to consider the ink of Bassemir et al. to be substantially free of curable functionality, which meets the limitation of the instant application.

Further regarding claim 7, Bassemir et al. do not explicitly disclose the energy-curable coating is free of pigment. However, Bassemir et al. recognize that the energy-curable coating can be a clear (energy-curable coating without a pigment) or colored photopolymerizable composition (energy-curable coating with a pigment). See col. 4, lines 66-73. Therefore, it would have been obvious to one of ordinary skill in the art to use a clear energy-curable coating in view of the desired packaging material.

Further regarding claim 18, Bassemir et al. do not explicitly disclose the packing material contains less than 700 ppm total residual solvent or water. Bassemir et al. disclose the printing ink is dried and has excellent printing qualities, that is gloss, grease resistance, dry rub, soap, water resistance and scratch resistance. See col. 5, lines 1-3 and example 1. Examiner notes it would have been obvious that the packaging material of Bassemir et al. would contain less than 700 ppm total residual solvent or water after it is dried in view of water resistance, gloss and dry rub properties, absent any evidence to the contrary.

7. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speer et al. (US 2002/0119295 A1).

Regarding claims 1-11, Speer et al. disclose radiation triggerable oxygen scavenging article (printed packaging material; [0043]) and method to produce the article [0002-0005]. The method of Speer et al. comprises applying an liquid ink (activatable liquid ink) to a packaging material exposing the ink to first actinic radiation (UV light); applying an energy-curable coating (radiation-curable overprint varnish) over the ink [0095] and curing the coating with second

actinic radiation (UV light or electron beam; [0084-0085]). See examples and [0064-0066 and 0106]. Speer et al. disclose the ink can be applied more than once and it is solvent-based [0094] or water-based [0076]. The printed packaging material can be thermoplastic film, foil laminate paper or paper plastic laminate [0091-0092 and 0096-0097]

Speer et al. do not explicitly disclose the ink is substantially free of curable functionality. However, examiner notes the term "substantially" is a relative term, which has not been defined. Therefore, the term in the claims is indefinite. It would have been obvious to one of ordinary skill in the art to consider Speer et al.'s ink to be substantially free of curable functionality, which meets the limitation of the instant application.

Further regards to claim, 7, Speer et al. do not explicitly disclose the energy-curable coating is free of pigment. However, Speer et al. disclose the radiation-curable overprint varnish can only include monomers and oligomers/prepolymers [0067], which meet the limitation of the instant application of free of pigment as recited by the instant application.

Response to Arguments

8. Applicant's arguments filed 05/07/2010 have been fully considered but they are not persuasive. Applicant's principal arguments are:

> *A) Bassemir's printing inks and coating contains photopolymerizable compounds, which are free radical polymerizable polyfunctional ethylenically unsaturated monomers and prepolymers (column 2, lines 34-41). The statement that these photopolymerizable compounds are polymerizable means that they necessarily contain functional groups which can be cross-linked or polymerized. In contrast, the term, "actinic radiation activatable ink" is defined in the present application as being substantially free of*

curable functionality. The fact that the ink of this reference is not substantially free of curable functionality cannot be avoided by arguing that the term "substantially" is a relative term and not defined. Substantially free clearly indicates to the person skilled in the art that there are no appreciable amounts of cross-linkable or polymerizable functional groups. Bassemir does teach that a colored photopolymerizable composition and a non-colored photopolymerizable composition can be applied in either order but regardless of the order, an ink substantially free of curable functionality is not be applied to a packaging material.

A) Examiner respectfully disagrees. Bassemir explicitly disclose the ink coating comprises polymer of ethylene and of polypropylene with each other or with at least one other polymerizable monomer (Col. 1, line 68- Col. 2, lines 29). The ink coating composition does not necessarily require a polymerizable monomer which is crosslinkable. Applicant has pointed to merely one embodiment of the reference. Therefore, the ink coating of Bassemir meets the limitation of the instant application of an actinic radiation liquid ink which is substantially free of curable functionality as recited in claim 1. The terms "substantially" and "appreciable" are relative terms, which have not been defined. Therefore, the terms in the claims are indefinite. Therefore, the rejection is maintained.

B) Speer discloses a radiation curable coating which can be overcoated but nevertheless, the radiation curable coating has curable functionality. This is apparent from [0005], which indicates that the oxygen scavenger prevents curing when UV or EB is applied, but that also means that the ink would be UV or EB cured (cross-linked or polymerized) if the scavenger was not present, and an appreciable quantity of cross-

linkable or polymerizable functional groups are present. Containing such as high digress of cross-linkable or polymerizable material clearly means to those skilled in the art that Speer's ink is not substantially free of cross-linkable or polymerizable functionality. .

B) Examiner respectfully disagrees. Speer explicitly discloses the radiation curable inks may be formulated from the same components as overprint varnishes [0084]. A useful overprint varnish is an EB curable overprint, which is believed to be essentially free of monomer/reactive diluent [0076]. The diluent of Speer are methacrylates, vinyl ethers and the like [0068-0069], which are the photopolymerizable and crosslinkable monomer and prepolymers. The diluents of Speer are the same as the curable functional groups of the instant application. Since, the radiation curable ink can contain the same ingredients as the EB curable overprint varnish as described in paragraph [0076], the curable ink meets the limitation of the instant application of an actinic radiation liquid ink which is substantially free of curable functionality as recited in claim1. Therefore, rejection is maintained.

C) The rejection of claims 11-14 under 35 USC 102 over Fukui is traversed, because the claim product is the result of a printing using a combination of "actinic radiation activatable ink" and "energy curable coating" so that the resulting product is a printed packing material..

C) Examiner respectfully disagrees. Applicant has amended claims 11 -14 to recite a printed packaging material. Applicant has only presented arguments with regards to the 102 rejection and not the 103 rejection over Fukui in the Applicant arguments/remarks, submitted on 05/07/2010 on page 8. Claim 11 recites product by process language, "produced according to the method." The language "produced according to claim 1" Applicant notes the claimed product is

a result of printing. The examiner agrees. However, that the claimed product is a result of printed means it is formed by printing, which is a process. The claim is a product by process claim in which only the product is given patentable weight unless applicant shows a different product has been formed only obtained by using his process. Applicant has made no such showing.

Applicant is reminded of MPEP 2113: "[E]ven though product-by-process claims are limited by and defined by the process; determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The printed packaging material of Fukui has not been shown to be different than the instant printed packaging material. Therefore, the rejection is maintained.

D) The rejection of claims 11 and 15-17 under 35 USC 102 or 103 over Chatterjee is traversed, because the office action does not point where there is a suggestion of printing on the packaging or where there is any suggestion of a degree of cure of the printed packaging material ,which results from the claimed method.

D) Examiner respectfully disagrees. Applicant has amended claims 11 and 15-17 to recite a printed packaging material. Claim 11 recites product by process language, "produced according to the method."

Applicant is reminded of MPEP 2113: "[E]ven though product-by-process claims are limited by and defined by the process; determination of patentability is based on the product

itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The printed packaging material of Chatterjee has not been shown to be different than the instant printed packaging material. Therefore, the rejection is maintained.

E) The rejection of claims 11-14 under 35 USC 102 over Mossbrook is traversed, because Mossbrook fails to disclose exposure the ink to UV after being applied to the film and before overcoating. Clearly, a radiation curable ink is the first applied material to the thermoplastic film, and there is no "actinic radiation activatable ink" layer on the substrate, rendering an anticipated rejection baseless. As to obviousness, the Office action does not point where there is any reasonable basis for the printed packaging material in Mossbrook contains any "energy-curable coating" material in the printing.

E) Examiner respectfully disagrees. Applicant has amended claims 11 -14 to recite a printed packaging material. Claim 11 recites product by process language of "produced according to the method." The process language of claim 1 is not afforded weight in claim 11-14. The phrase, "energy curable coating" in claim 1 is not part of claim 11. Claims 11-14 are product claims which only include a printed packaging material.

Applicant is reminded of MPEP 2113: "[E]ven though product-by-process claims are limited by and defined by the process; determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the

claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). The printed packaging material of Mossbrook has not been shown to be different than the instant printed packaging material. Therefore, the rejection is maintained.

Allowable Subject Matter

9. Claims 19 and 20 are allowed.

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHANCEITY N. ROBINSON whose telephone number is (571)270-3786. The examiner can normally be reached on Monday to Friday (with every other Friday off): 9:00 am-6:00 pm eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chanceity N Robinson/
Examiner, Art Unit 1795

/Cynthia H Kelly/
Supervisory Patent Examiner, Art Unit 1795